

Temperature, Power and Safety Limit Controller in One Package

The SERIES EHG[®] CL integrated, multi-function controller from Watlow[®] is a key component to a powerful system that includes a heater, an adjustable set point temperature controller, a high/low temperature alert, a power switching device and a high temperature safety limit. Its agency recognized controller/safety limit meets UL[®] 1998 and CE 60730 requirements.

An optional display/communications module can be easily added in the field to provide a digital display indication, an adjustment of set point, RS485 Modbus[®] communications and other Human Machine Interface (HMI) features. As a scalable system, only what is needed can be purchased.

The EHG CL controllers' easy to install, compact design, inherent reliability and integrated limit functions offer unmatched value. It is designed for easy integration with Watlow heaters to simplify engineering, reduce component count for new equipment and decrease ownership cost. For original equipment manufacturers (OEMs), the EHG CL controller's CE, Semi-S2 compliance and UL[®] recognition reduces time and costs associated with global agency testing and validation. U.S. Patent Number 8,044,329

Features and Benefits

Temperature range -18 to 537°C (-0.4 to 999°F)

- Ideal for high temperature applications

Process controller and safety limit in one package

- Meets UL[®] 1998 and CE 60730 requirements
- Eliminates the need for a thermal fuse on a heater
- Eliminates replacement of heater when fuse fails

Optional display/communications module

- Allows easy upgrade on to base device
- Offers low cost field upgrade
- Provides easy, snap-on installation

Accurate and flexible temperature process controller

- Replaces problematic bi-metal thermostats with accurate electronic temperature process controller
- Allows easy change of process parameters



Ambient operating temperature range 0 to 70°C (32 to 158°F)

- Increases reliability when mounting in harsh temperature environments or in close proximity to heaters

Health check diagnostics

- Monitors maximum heater process temperature, maximum ambient temperature and thermocouple operation
- Provides health check signal to inform operator that the process is working correctly

Universal power supply

- Allows an input of 85 to 264VAC, 50/60Hz
- Provides safe control of up to 2400 watts with 10 amperes switching in both controller and safety limit

Can be switched from on-off and PID algorithm

- Increases product life (on-off control is default)
- Offers selectable PID control algorithm for tighter temperature uniformity

Universal 1/8 turn mounting bracket

- Allows mounting to most surfaces
- Provides flexible mounting—either horizontally or vertically

Typical Applications

Semiconductor processing

- Gas delivery lines
- Exhaust/pump lines

Life sciences

- Laboratory equipment
- Medical equipment
- Pharmaceutical



Better Thermal Solutions...Faster

COL-EHGCL-0912

Specifications

Operational

- Two Type K thermocouple inputs - process temperature control and safety limit
- Process temperature output - 10A NO-ARC relay
- Safety limit alarm - 10A relay
- On-off temperature controller algorithm, upgraded via communications or display module to PID algorithm (min. cycle time 30 seconds)

Standard Molex® connectors

- Controllers are integral to the heater and are supplied by Watlow

Power

- Isolated universal power supply 85 to 264VAC, 50/60Hz
- Up to 2400 W with 10A switching capability

NO-ARC Relay

- 10A switching
- 4.5 million cycles

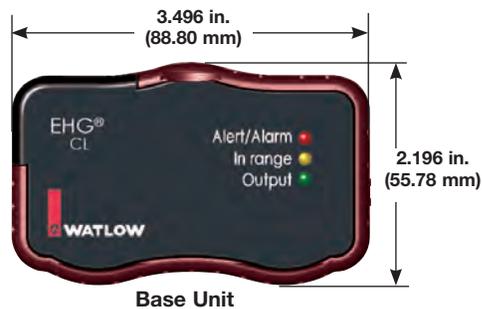
Environmental

- Ambient operating temperature range 0 to 70°C (32 to 158°F)

Agency Approvals

- UL® 1998/ C-UL®
- CE 60730
- Semi-S2

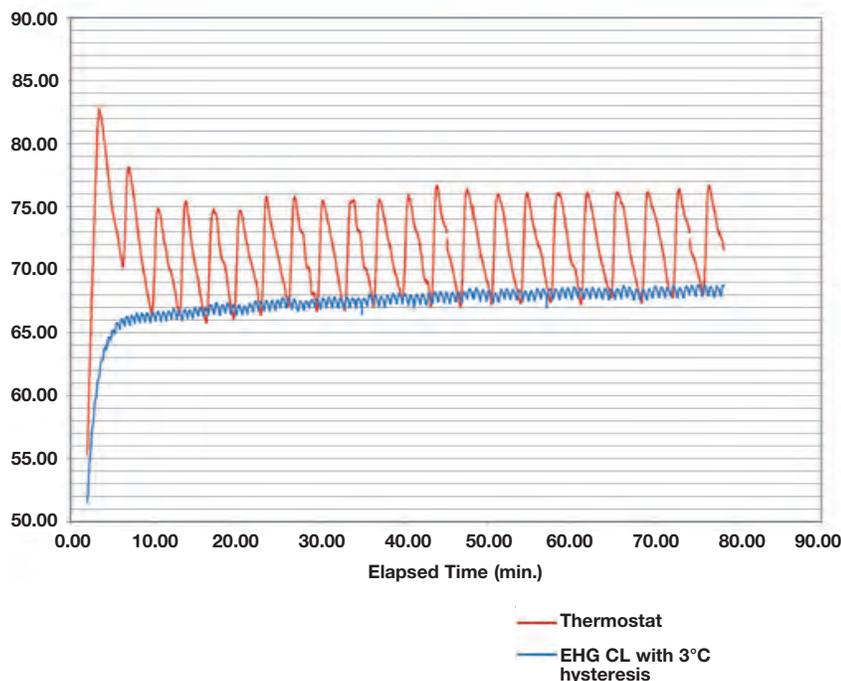
Dimensions



Switching Device Comparison Chart

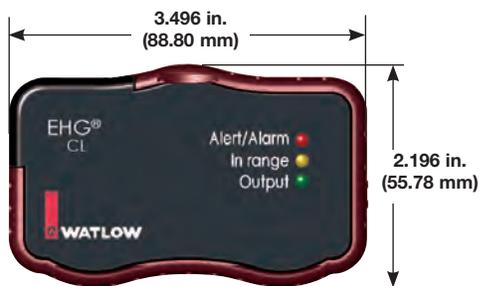
	T-Stat	Solid State Relay	Watlow NO-ARC Relay
Amperage at 25°C (77°F)	10A	10A	10A
Amperage at 70°C (158°F)	10A	De-rate significantly and add heat sink and air cooling	10A
Output device life at 10A	Rated 100,000 at 70°C (158°F)	Greater than 10 million cycles at 25°C (77°F)	Greater than 4.5 million cycles at 70°C (158°F)

EHG CL Versus Thermostat (Typical Application)





Modules can be upgraded and are easily replaceable.



Base Unit



Communications Only Module



Display Only Module



Display and Communications Module

Ordering Information

Part Number

① ② ③ ④ ⑤ ⑥	⑦ ⑧ ⑨
265 EG3	Base/ Module

⑦ ⑧ ⑨	Base/Module
001 =	Base unit (extended temperature range)
002 =	Display module (extended temperature range)
003 =	Communications module (extended temperature range)
004 =	Display with communications module (extended temperature range)

Additional cables for wiring parallel heater circuits (daisy-chaining) in gas line and other assemblies

- 4800-0012 - Long cable
- 4800-0022 - Long terminating cable
- 4800-0011 - Short cable
- 4800-0021 - Short terminating cable

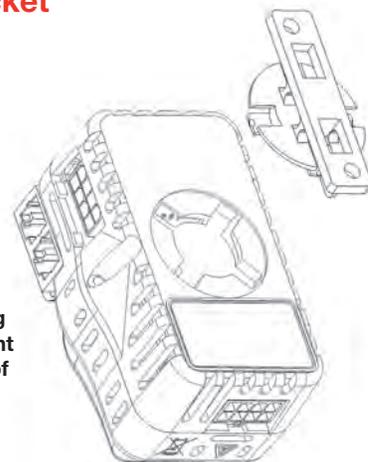
Availability

The EHG CL is available for shipment; please contact your Watlow representative for more information.



The EHG CL can be "daisy-chained" for gas line and other assemblies.

Mounting Bracket



The EHG CL mounting bracket lets you mount the controller in any of four angles.

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